REMARKS

Entry of the foregoing, and reexamination and reconsideration of the subject application, as amended, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the comments which follow, are respectfully requested.

By the above amendment, the specification has been amended to refer to each of the sequence listing identifiers and specifically to identify each of the sequences noted at pages 3, 7, 8, 10 and 12 in the Official Action. In addition, Claims 16 and 19 have been amended to refer to the sequence listing identifiers. Claim 16 has also been amended to refer to "isolated" neurotrypsins as described in the specification at, e.g., page 7-13. Claim 19 has been amended to refer to a method. New claims 31-32 have further been added based upon claim 19. Support for new claims 31-32 is present in the original claims and the specification at, e.g., page 14, lines 1-4.

Turning now to the Official Action, the specification has been objected to as failing to provide appropriate reference to the sequence identifiers for the sequences shown at pages 3, 7, 8, 10 and 12. By the foregoing amendment, each of the sequences shown at the pages referred to in the Official Action have been properly identified by a sequence ID number. In addition, the specification has been amended to include each of the remaining sequence identifies provided in the sequence listing. Withdrawal of the objection to the specification is requested.

Claims 16 and 19 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicant respectfully traverses this rejection for at least the following reasons.

In the Official Action, it is asserted that Claim 16 fails to identify the compounds associated with formulae I and II. By the foregoing amendment, Claim 16 has been amended to refer to the sequence identifiers associated with each formula. In particular, the isolated neurotrypsin of the human is associated with SEQ ID NO: 1 and the isolated neurotrypsin of the mouse is associated with SEQ ID NO: 3.

Claim 19 has also been rejected as reciting a "use" since it allegedly fails to define the method steps and for not providing antecedent basis for the phrase "compounds of the formulas I and II." By the foregoing amendment, claim 19 has been amended to recite a "method" comprising the recited steps. The phrase "the compounds of the formulas I or II" has also been replaced with the proper sequence identifiers, i.e. SEQ ID NOS: 1 or 3.

Accordingly, as amended, the claims are clear within the meaning of the second paragraph of 35 U.S.C. § 112. Withdrawal of the second paragraph rejection is requested.

Claims 16 and 19 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter and an improper definition of a process, respectively. Applicant respectfully traverses these rejections for at least the following reasons.

By the foregoing amendment claim 16 has been amended to recite "isolated" neurotrypsins according to the sequence identifiers SEQ ID NOS: 1 and 3. As such, Applicant submits that the claimed neurotrypsins may be distinguished over those which occur in nature. In addition, claim 19, as amended, presently recites a "method" comprising active, positive steps.

Accordingly, as amended, the claims are in compliance with 35 U.S.C. § 101. Withdrawal of the § 101 rejection is requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is requested.

If the Examiner has any questions concerning this response, or the application in general, she is invited to telephone the undersigned.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: _____
Mark L. Warzel
Registration No. 47,264

P.O. Box 1404
Alexandria, VA 22313-1404
(703) 836-6620

Date: October 26, 2001

Attachment to Amendment Filed October 26, 2001
Marked up version of the Specification and Claims 16 and 19

In the Specification:

Page 1, amend the fifth full paragraph (shown as lines 26-30 on the page) as follows:

The newly found neurotrypsins

- neurotrypsin of the human (compound of the formula I, SEQ ID NO: 1),
- neurotrypsin of the mouse (compound of the formula II, SEQ ID NO: 3)

differ structurally very much from the so far known serine proteases.

Page 2, amend the third full paragraph (beginning at line 7, shown as line 10 on the page) as follows:

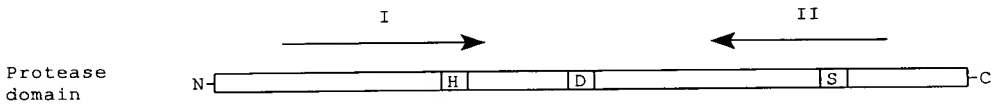
The neurotrypsin of the human (compound of the formula I, SEQ ID NO: 1) has a coding sequence of 2625 nucleotides. The coded peptide of the compound of the formula I (SEQ ID NO: 1) has a length of 875 amino acids and contains a signal peptide of 20 amino acids (SEQ ID NO: 2). The neurotrypsin of the mouse (compound of the formula II, SEQ ID NO: 3) has a length of 761 amino acids and contains a signal peptide of 21 amino acids (SEQ ID NO: 4). The reason for the greater length of the neurotrypsin of the human consists therein that the human neurotrypsin has 4 SRCR domains, whereas the neurotrypsin of the mouse has only 3 SRCR domains.

Page 3, amend the first full paragraph after the sequences (shown as lines 2-5 on the page) as follows:

From the 258 amino acid sequence positions included in the comparison there are 233 amino acids that are identical in both compounds (upper sequence: compound of the formula I, SEQ ID NO: 1; lower sequence: compound of the formula II, SEQ ID NO: 3; identical amino acids are indicated by vertical lines).

Attachment to Amendment Filed October 26, 2001
Marked up version of the Specification and Claims 16 and 19

Page 7, amend the depiction of the sequences after the first full paragraph (after line 15 shown on the page) as follows:



					SEQ ID NOS:
tPA (m)	..SSC	W V L S A A H C	FLE.....HDA	C Q G D S G G	PLV.. 9, 10
uPa (m)	..SPC	W V A S A A H C	FIQ.....TDS	C K G D S G G	PLI.. 11, 12
thrombin (m)	..SDR	W V L T A A H C	ILY.....GDA	C E G D S G G	PFV.. 13, 14
plasmin (m)	..APE	W V L T A A H C	LKS.....VDS	C Q G D S G G	PLV.. 15, 16
trypsin (m)	..NDQ	W V V S A A H C	YKY.....KDS	C Q G D S G G	PVV.. 17, 18
chymTryp b (r)	..SED	W V V T A A H C	GVK.....VSS	C M G D S G G	PLV.. 19, 20
pancElas II (m)	..ANN	W V L T A A H C	LSN.....TSS	C N G D S G G	PLN.. 21, 22

Primer (I) 5'-TGG GTI SYI WSI GCI GCI CAT TG-3' (II) 3'-ACR BTY CCI CTR WSI CCI CC-5'
(SEQ ID NO: 7) (SEQ ID NO: 8)

Page 8, amend the first full paragraph (lines 1-5) as follows:

The following primers were used:

In the reading direction (sense primers; SEQ ID NO: 23):

5'-GGGGAATTCTGGGTI(C/G)(T/C)I(T/A)(G/C)IGCIGCICA(T/C)TG-3'

In the counter direction (antisense primers; SEQ ID NO: 24):

5'-GGGGGATCCCCICCI(G/C)(A/T)(A/G)TCICC(C/T)T(G/C/T)(G/A)CA-3'.

Page 10, amend the text after first full paragraph (lines 10-13) as follows:

In the reading direction (sense primers; SEQ ID NO: 25):

5'-GGGAAGCTTGGICA(A/G)TGGGGIACI(A/G)TITG(C/T)GA(C/T)-3'

In the counter direction (antisense primers; SEQ ID NO: 26):

5'-GGGCTCGAGCCCCAICCTGTTATGTAAIAGTTG-3'.

Attachment to Amendment Filed October 26, 2001
Marked up version of the Specification and Claims 16 and 19

Page 12, amend the first full paragraph as follows:

The more than 60 amino acids long proline-rich, basic segment at the amino terminus of the coded sequence of the compounds of the formulas I and II is well suited for the production of antibodies by means of synthesizing peptides and using them for immunization. We have selected two peptide sequences with a length of 19 and 13 amino acids from the proline-rich, basic segment at the amino terminus of the coded sequence of the compound of the formula II for the generation of antibodies. The peptides had the following sequences:

Peptide 1 (SEQ ID NO: 27): H_2N-SRS PLH RPH PSP PRS QX-$CONH_2$

Peptide 2 (SEQ ID NO: 28): H_2N-LPS SRR PPR TPR F-COOH

In the Claims:

16. (amended) Isolated neurotrypsins [Neurotrypsins of the] having the sequences of formulas I and II:

I: neurotrypsin of the human (SEQ ID NO: 1); and

II: neurotrypsin of the mouse (SEQ ID NO: 3).

19. (amended) A method [Use of proteins with the coded amino acid sequences of the compounds of the formulas I or II as targets] for the development of pharmaceutical drugs[, for example for the inhibition or the enhancement of the catalytic activity of the coded proteins of the formulas I or II] comprising, providing isolated proteins having the coded amino acid sequences of SEQ ID NOS: 1 or 3 and using said proteins as targets for said pharmaceutical drugs.